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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,923	12/31/2003	Masahiro Yamanaka	SIC-02-009-4	1913

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DELAND LAW OFFICE  
P.O. BOX 69  
KLAMATH RIVER, CA 96050-0069

EXAMINER
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LUONG, VINH

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 05/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/750,923

Applicant(s)

YAMANAKA, MASAHIRO

Examiner

Vinh T Luong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 31-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 31 and 32 is/are rejected.
- 7) ☒ Claim(s) 33 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.


**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
**Vinh T. Luong**  
**Primary Examiner**

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12312003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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1. The Preliminary Amendment filed on December 31, 2003 has been entered.
2. The replacement drawings were received on December 31, 2003. These drawings are accepted by the Examiner.
3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter, such as, a *first* fastener opening, a *second* fastener opening, *etc.* Applicant is respectfully urged to use the same numerical order or terminology in the claims and specification. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction is required.
4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
6. Claims 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Romero'785 (USP 5,010,785).

Regarding claim 31, Romero'785 teaches a crank arm 10 comprising:

a crank arm body 12 having an axle mounting boss 22 on a first end and a pedal mounting boss 56 on a second end;

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wherein the axle mounting boss 22 defines an opening 24 for receiving an axle therein. Ibid., col. 2, line 54 et seq.;

wherein the axle mounting boss 22 includes a first mounting ear 28 in close proximity to a second mounting ear 30;

wherein the first mounting ear 28 includes a first fastener opening 32; and

wherein the second mounting ear 30 includes a second fastener opening (i.e., "a similar hole." ). Ibid., col. 2, lines 49-54.

Romero'785 teaches the invention substantially as claimed. However, Romero'785's first ear has one fastener opening instead of two fastener openings and Romero'785's second ear similarly has one fastener opening instead of two fastener openings.

It is common knowledge in the art to make two fastener openings instead of one fastener opening in the first and second ears of Romero'785 in order to connect Romero'785's crank shaft to the axle. The use of two fastener openings for two fasteners instead of one fastener opening for one fastener would have been a matter of choice in design since the claimed structures and the functions they perform are the same as the prior art. See *In re Chu*, 66 F.3d 292, 36 USPQ2d 1089 (Fed. Cir. 1995) citing *In re Gal*, 980 F.2d 717, 719, 25 USPQ2d 1076, 1078 (Fed. Cir. 1992); *Sjolund v. Musland*, 847 F.2d 1573, 6 USPQ2d 2020 (Fed. Cir. 1988)(the use of a plurality of panels instead of a single panel is obvious); and *Monarch Knitting Machinery Corp. v. Sulzer Morat GmbH*, 139 F.3d 877, 45 USPQ2d 1977 (Fed. Cir. 1998).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to make two fastener openings instead of one fastener opening in the first

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and second ears of Romero'785 in order to connect Romero'785's crank shaft to the axle as taught or suggested by common knowledge in the art.

Regarding claim 32, Romero'785's first or second fastener opening has a threaded inner peripheral surface for a threaded fastener. Ibid., col. 2, lines 49-54.

7. Claim 33 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Durham'919 (ears 18 in Fig. 2), Romero'308 (Figs. 1-5), Durham'218 (ears 7), and Nagano (ears 2e in Fig. 4A).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinh T. Luong whose telephone number is 703-308-3221. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci can be reached on 703-308-3668. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Luong

May 21, 2004



Vinh T. Luong  
Primary Examiner